

WHAT IS CLAIMED IS:

1. A concentrated network interconnection control system provided in a network which provides connections between a plurality of user networks, comprising:

a plurality of interfaces connected to individual user networks for transmitting and receiving packets;

a network interconnection controller providing a plurality of control function parts independently for each pair of user networks; and

a function association selector for associating each interface to either one of the plurality of control function parts.

2. A concentrated network interconnection control system according to Claim 1, in which the function association selector comprises a function managing table which manages a relationship between each interface and corresponding control function part, each interface being associated to either one of the plurality of control function parts on the basis of the function managing table.

3. A concentrated network interconnection control system according to Claim 1, in which the network interconnection controller comprises a network interconnection control table which defines rules for connection between each pair of terminal addresses for the pairs of user networks which correspond to each of the control function parts.

4. A concentrated network interconnection control system according to Claim 1, in which the concentrated network interconnection control system represents a concentrated firewall equipment, and in which the function association selector comprises:

a function managing table for managing a relationship between each interface and corresponding one of the control function parts;

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an identifier imparting part for retrieving an identifier for the control function part which corresponds to the interface that has received a packet from the function managing table and for imparting the identifier to the packet;

a firewall function selector for transferring the packet to the control function part which corresponds to the imparted identifier; and

an output interface selector for retrieving an interface which corresponds to the identifier imparted to the packet from the control function part from the function managing table and for delivering the packet to the corresponding interface.

5. A concentrated network interconnection control system according to Claim 4, in which the network interconnection controller contains a firewall table including pairs of sender and receiver terminal addresses for each pair of user networks, a direction of transfer between each pair of interfaces corresponding to each pair of addresses, and a connection control indicating whether a connection between each pair of addresses is enabled or rejected.

6. A concentrated network interconnection control system according to Claim 1, in which the concentrated network interconnection control system is a concentrated address translation system, and in which the function association selector comprises:

a function managing table for managing a relationship between each interface and corresponding one of the control function parts;

an identifier imparting part for retrieving an identifier for the control function part which corresponds to the interface which has received a packet from the function managing table and for imparting the identifier to the packet;

an address translation function selector for transferring the packet to the control function part which corresponds to the imparted identifier; and

an output interface selector for retrieving an interface which corresponds to the identifier imparted to the packet from the control function part from the function managing table and for delivering the packet to the corresponding interface.

7. A concentrated network interconnection control system according to Claim 6, in which the network interconnection controller contains an address translation table including a pair of a terminal address in one of a pair of user networks which is to be translated and a translated address, and a direction of transfer between corresponding interfaces with respect to each of the identifiers.

8. A concentrated network interconnection control system according to one of Claims 1, 2, 4 and 6, in which the function association selector and the network interconnection controller are formed by devoted logic circuits.

9. A concentrated network interconnection control system according to one of Claims 1, 2, 4 and 6, in which the function association selector and the network interconnection controller are implemented in a software which is executed by a computer.